



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/721,949	11/27/2000	Makoto Ogiso	107239	5728

7590 01/07/2002

Oliff & Berridge PLC
P.O. Box 19928
Alexandria, VA 22320

EXAMINER

CORRIGAN, JAIME W

ART UNIT	PAPER NUMBER
----------	--------------

3748

DATE MAILED: 01/07/2002

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/721,949

Applicant(s)

OGISO ET AL.

Examiner

Jaime W Corrigan

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 19-27 is/are allowed.
- 6) ☒ Claim(s) 1-3, 9-11, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 4-8 and 12-16 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 3, 9-11, 18-19, 23-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 1, 3, 10, 24, 26, line 2, the recitation of "adjusting an opening and closing timing and/or opening amount" is indefinite. It is recommended that applicant amend the language to read -- adjusting at least one of an opening and closing timing and opening amount. --

In claims 9, 18, 23, 25, 27, line 2, the recitation of "drives the intake valve and/or the exhaust valve" is indefinite. It is recommended that applicant amend the language to read -- drives at least one of the intake valve and the exhaust valve --.

In claim 11, line 4, the recitation of "alter the opening and closing timing and/or opening amount" is indefinite. It is recommended that applicant amend the language to read -- alter at least one of the opening and closing timing and opening amount --.

In claim 19, line 2, the recitation of "adjusting an opening and closing timing and /or opening amount" is indefinite. It is recommended that applicant amend the language to read --adjusting at least one of an opening and closing timing and opening amount--; page 70, line 7, the recitation of "alter the opening and closing timing and/or

opening amount" is indefinite. It is recommended that applicant amend the language to read -- alter at least one of the opening and closing timing and opening amount --.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 10, 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Michio (05180013).

Regarding claim 1 Michio discloses a variable valve train capable of adjusting an opening and closing timing and/or opening amount of at least one of an intake valve and an exhaust valve of the internal combustion engine (See Abstract); a negative pressure mechanism (See Figure 2 (30)) that operates using an intake pipe negative pressure generated in an intake passage of the internal combustion engine (See Figure 2 (2)); and negative pressure supply device (See Figure 2 (11), (12), (13)) that supplies a negative pressure to the negative pressure mechanism when a predetermined condition is satisfied.

Regarding claim 3 Michio discloses a variable valve train capable of adjusting an opening and closing timing and/or opening amount of at least one of an intake valve and an exhaust valve of the internal combustion engine (See Abstract); a negative pressure mechanism that operates using an intake pipe negative pressure generated in an intake

passage of the internal combustion engine (See Figure 2 (30)); a throttle valve for adjusting a flow rate of intake air flowing through the intake passage (See Figure 2 (8)); and negative pressure generating device (See Figure 2 (11), (12), (13)) that controls at least one of the variable valve train and the throttle valve (See Figure 2 (8)) to generate an intake pipe negative pressure when a predetermined condition is satisfied .

Regarding claim 10 Michio discloses a variable valve train capable of adjusting an opening and closing timing and/or opening amount of at least one of an intake valve and an exhaust valve of the internal combustion engine (See Abstract); a negative pressure mechanism that operates using an intake pipe negative pressure generated in an intake passage of the internal combustion engine (See Figure 2 (30)); a throttle valve for adjusting a flow rate of intake air flowing through the intake passage (See Figure 2 (8)); and throttle valve controller that closes the throttle valve by a predetermined amount when a predetermined condition is satisfied (See Figure 2 (50)).

Regarding claim 17 Michio discloses the negative pressure mechanism is an evaporation fuel reflux mechanism for refluxing evaporation fuel generated in a fuel tank into the intake passage (See Figure 2 (22), (28), (30), (34), (38)), and the throttle valve controller closes the throttle valve by the predetermined amount when the evaporation fuel reflux mechanism needs to be operated (See Figure 2 (50)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 3748

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 9, 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Michio (05180013) in view of Ishii (PN 5,964,192).

Michio discloses the invention as recited in claims 1, 3, 10 above, however, fails to disclose the variable valve train drives the intake valve and/or the exhaust valve to open and close using electromagnetic force.

Ishii teaches that it is conventional in the art to utilize the variable valve train drives the intake valve and/or the exhaust valve to open and close using electromagnetic force.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have utilized the electromagnetic valve taught by Ishii in the Michio device since it would improve the control of the variable valve timing control mechanism.

Allowable Subject Matter

Claims 4-8, 12-16 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Art Unit: 3748

Claims 19 - 27 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

EXAMINER'S AMENDMENT

The restriction requirement issued by the examiner on 10-26-01 is hereby withdrawn in that, the search for the non-elected claims was co-extensive with the elected claims. Accordingly claims 4-5 are objected to.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Feigel (PN 6,213,568), Ohsaki (PN 6,305,757) use similar negative pressure mechanisms.

Any inquiry concerning this communication from the examiner should be directed to Examiner Jaime Corrigan whose telephone number is (703) 308-2639. The examiner can normally be reached on Monday - Friday from 8:30 a.m. – 5:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (703) 308-2623. The fax number for this group is (703) 308-7763.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0861.

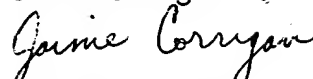
Application/Control Number: 09/721,949
Art Unit: 3748

Page 7

JC

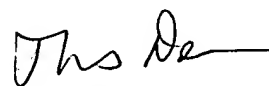
December 31, 2001

Jaime Corrigan



Patent Examiner

Art Unit 3748



THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700